



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,069	10/10/2005	Sundar Raman	ST02014USU (168-US-U1)	7545
34408	7590	04/15/2008	EXAMINER	
THE ECLIPSE GROUP 10605 BALBOA BLVD., SUITE 300 GRANADA HILLS, CA 91344			NGUYEN, NGA X	
			ART UNIT	PAPER NUMBER
			3662	
			MAIL DATE	DELIVERY MODE
			04/15/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,069	<b>Applicant(s)</b> RAMAN ET AL.	
	<b>Examiner</b> NGA X. NGUYEN	<b>Art Unit</b> 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-39,44-59 and 79-88 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-39,44-59 and 79-88 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Examiner's Response on Election/Restrictions***

1. Applicant's election with traverse of Group I, Species B (claims 30-39, 44-59 & 79-88) in the reply filed on 02/12/2008 is acknowledged. Claims 1-29, 40-43 & 60-78 are canceled.

- Applicant argument that the examiner does not identify any characteristics of the species A & B in Group I.
- Response: Species A and B in Group I having two differences methods to search GPS satellites which defined on each specie of the office action sent out on 01/23/2008.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 30-39 & 79-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (2003/0231132) in view of Stratton (6570531).

With regard to claim 30, 79, Park discloses:

- Assigning each GPS satellite ID corresponding to each received GPS signal from the received plurality of GPS signals to an individual channel of the multi channel GPS receiver (see page 3-4, paragraph 51-55).
- The multi channel GPS receiver selecting channels to search and determine the chosen satellites (see page 4, paragraph 55-56).

Art Unit: 3662

Stratton discloses:

- A monitoring processing channel to monitor the position, velocity and time (PVT) data to detect position error of satellite signals (see column 3, lines 23-60).

It would have been obvious to modify Park by incorporating the teaching of Stratton's apparatus to have monitoring channel so as the system is able to monitoring signals entering from satellites.

With regard to claim 31 & 80, Park teaches utilizing a visible list to assign each GPS SAT ID to each individual channel (see page 4, paragraph 35).

With regard to claim 32-34 & 81-83, Park teaches that the selecting includes selecting first non-assigned channel, the channel assigned to a lowest elevation SAT upon assignment to all channels (see column 4-6, lines 56-90).

With regard to claim 35 & 84, Park teaches:

- Determining the position of the multi-channel GPS receiver (see page 1, paragraph 5-10).
- Monitoring a channel assigned to a SAT ID with a low C/No (see page 4, paragraph 57-58).

With regard to claim 36 & 85, Stratton teaches that monitoring includes determining a false lock at the channel (see column 3, lines 41-59).

With regard to claim 37-39, & 86-88 Park teaches determining whether a GPS SAT ID is assigned to the monitoring channel (see page 5, paragraph 84), and searching the remaining SATs in the GPS constellation after all the common SATs are searched (see page 4, paragraph 55).

3. Claim 44-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roh (2004/0196183) in view of Park (2003/0231132), and further in view of Stratton (6570531).

With regard to claim 44, 49, 54 & 59, Roh discloses:

- Assigning each GPS satellite ID corresponding to each received GPS signal from the received plurality of GPS signals to an individual channel to the multi channel GPS receiver (see page 4, paragraph 46).
- Generating a weak list of GPS satellites from the received plurality of GPS satellites (see page 10-11, paragraph 104-110).
- Generating a search list of GPS satellites from the weak list of GPS satellites (see page 9, paragraph 97).
- Determining whether a strong GPS satellite signal exists from the received plurality of GPS signals (see page 10, paragraph 104).

Park discloses:

- Selecting a channel of the multi channel GPS receiver to track and determine the chosen satellites' information (see page 4, paragraph 55-56).

Stratton discloses:

- A monitoring processing channel to monitor the position, velocity and time (PVT) data to detect position error of satellite signals (see column 3, lines 23-60).

It would have been obvious to modify Roh by incorporating the teaching of Park's apparatus and further the teaching of Stratton's apparatus to have monitoring channel so as the system is able to monitoring weak signals entering from satellites.

With regard to claim 45-48, 50-53 & 55-58, Roh teaches:

- Determining a weak GPS satellite signal from the received plurality of GPS signals (see page 7, paragraph 83).
- Generating the weak list of GPS satellites including the weak GPS satellite (see page 10-11, paragraph 104-110).
- Comparing and generating the search list of GPS satellites (see page 8-9, paragraph 93-94).
- Determining a Doppler frequency for the weak GPS satellite signal and generating a Doppler list of Doppler frequency values from the determined weak GPS satellite signal (see page 11-13, paragraph 112-121).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGA X. NGUYEN whose telephone number is (571)272-5217. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TARCZA H. THOMAS can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NGA X NGUYEN  
Examiner  
Art Unit 3662

NXN

/Thomas H. Tarcza/

Supervisory Patent Examiner, Art Unit 3662